





International Workshop on

"Singularities and Topological Structures of Light"

July 8-12, 2013

(Miramare - Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics is organizing an *International Workshop on "Singularities and Topological Structures of Light*", to be held at ICTP, Trieste, Italy from July 8 to 12, 2013.

This is the second workshop in the field organized by the ICTP and its aim is to bring together active scientists from all over the world to discuss current frontiers of research related to singularities and its applications. The fundamental physics of *phase* and *vector* singularities, and *linear* and *angular* momentum of light is the subject of the workshop. Applications in modern physics will also be discussed, including:

- Generation and manipulation of scalar and vector optical vortices
- Imaging from micro- to astronomical-systems
- Optical tweezers
- Quantum information
- Random optical vortices and beam patterns
- Vortices in quantum turbulence
- BEC and exciton-polariton condensates
- Liquid crystals
- Electron and X-ray vortex beams

PARTICIPATION:

Attendance is open to scientists and engineers from all countries that are members of the United Nations, UNESCO or IAEA. As the Workshop will be conducted in English, participants should have an adequate working knowledge of that language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. **Registration is free-of-charge for all attendees.**

The Optical Society of America (OSA) is generously offering their "OSA Young Researcher Paper Award" which will be conferred to a young researcher, during this event, for the best paper.

Call For Papers

For those interested in making an oral or poster presentation during the Workshop, a one-page abstract (size A4) should be uploaded <u>directly to the on-line application</u>. (*Please upload file attachments in .pdf*)

APPLICATION:

The "On-line Application" form can be accessed at the: *ICTP activity website*: http://agenda.ictp.it/smr.php?2467 inclusive of a *step-by-step instruction guide*.

ACTIVITY SECRETARIAT

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ICTP Home page: http://www.ictp.it/

CO-sponsor OSA The Optical Society of America

DIRECTORS

Dr. Ebrahim Karimi (U. of Ottowa)

Prof. Joseph Niemela (ICTP)

INVITED SPEAKERS

Prof. Stephan M. Barnett
(University of Strathclyde)
Prof. Sir Michael Berry (University of Bristol)

Prof. Robert W. Boyd (University of Ottawa & University of Rochester)

Dr. Konstantin Bliokh (Nat'l University of Ireland)

Dr. Mark Dennis (University of Bristol)

Dr. Sonja Franke-Arnold (University of Glasgow)

Prof. Christoph Marquardt (Max Planck Institute for the Science of Light)

Prof. Lorenzo Marrucci
(Università di Napoli "Federico II")

Prof. Ian McNulty (Argonne Nat'l Laboratory)

Prof. Miles Padgett (University of Glasgow)

Prof. Monika Ritsch-Marte (University of Innsbruck)

Prof. Enrico Santamato

(Università di Napoli "Federico II")

Dr. Daniele Sanvitto (Istituto di Nanoscienze – CNR)

Prof. Grover Swartzlander (Rochester Inst. of Technology)

Dr. Fabio Sciarrino (Università 'La Sapienza' di Roma)

Prof. Taco D. Visser (Delft University of Technology & Vrije Universitet Amsterdam)

DEADLINE April 30, 2013